

# EMBRY-RIDDLE

## Aeronautical University

### Survey of Meteorology WX201

#### Course Information

Academic Term: Daytona/Prescott 2021 Fall

Term Dates: Aug 30, 2021 - Dec 15, 2021

Credit Hours: 3

Mode of Delivery: Varies

Class Meetings: Varies

Location: Varies

#### Instructor Information



**Name**

Kaitlyn Smoleroff

**Email**

smolerok@erau.edu

**Student Hours/Office Hours**

Tuesday: 8:00-9:00pm

Thursday: 5:30-6:30pm

Or on Zoom by appointment

**Office Location**

COA 358B

**Name**

Dr. Randell Barry

**Email**

barryc69@erau.edu

**Phone**

(386)323-8077

**Student Hours/Office Hours**

MWF 08:15-09:45, M 11:15-13:45, and W 12:30-13:30;  
also by appointment

**Office Location**

COA337

**Name**

Dr. Shawn Milrad

**Email**

milrads@erau.edu

**Phone**

386-226-7392

**Student Hours/Office Hours**

- **MWF: Noon-2 pm**
- **TuTh: Noon-5 pm**
- **By appointment**

For COVID-19 reasons, if you do wish to meet in my office, I politely request that you wear a face covering. I'm also more than happy to meet with you in the ERAU Weather Lab (3rd floor COA) or outside at a picnic table if it's easier to spread out. Just let me know!

I will also have virtual office hours available via Zoom during my scheduled office hours or by appointment. Use the sign-on information below. If I do not let you in from the Zoom waiting room right away, it means I am likely with another student.

### **Sign-on information:**

- <https://erau.zoom.us/j/91702536172?pwd=MEFpbHR0d2YvVG4rVVlxRUQvaXZlZz09>
- Meeting ID: 917 0253 6172
- Password: tornado

### **Office Location**

COA331



### **Name**

Christopher Herbster

### **Email**

herbstec@erau.edu

### **Phone**

386 226-6444

### **Student Hours/Office Hours**

Visit <https://wx.erau.edu/faculty/herbster/Schedules/>

### **Office Location**

COA 338

### **Instructor Page**

<https://wx.erau.edu/faculty/herbster/>

## Catalog Course Description

This is a survey course in meteorology that includes applications to flight. Included is a systematic development of the following topics: the composition and general structure of the atmosphere, energy and energy transfer, seasonal and daily controls on temperature, pressure, wind, local and regional circulations, atmospheric stability, vertical motion, turbulence, moisture, fog, clouds, precipitation, icing, the general circulation pattern, climate, jet streams, air masses, fronts, mid-latitude cyclones, tropical cyclones, thunderstorms, and weather observations and charts.

## Course Goals

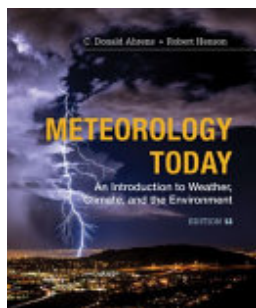
This course is designed to provide the student with a general meteorological background with some emphasis on the impact of weather on flight operations

## Student Learning Outcomes

1. Classify the main constituents of the atmosphere and how their relative concentrations impact global weather and climate.
2. Recognize atmospheric processes that generate temperature, pressure and wind patterns from the surface to jet stream altitudes.
3. Recognize sources of vertical motion in the atmosphere and the resultant changes in temperature, pressure, and humidity.
4. Identify weather conditions associated with stable and unstable air.
5. Classify and interpret the development of the various types of fog, clouds, and precipitation.
6. Describe circulation patterns in the atmosphere and their influence on local weather and climates.
7. Identify the structures and effects of thunderstorms and cyclones.
8. Detect significant aviation weather hazards including thunderstorms, Instrument Flight Rules (IFR) conditions, icing, shear, and turbulence.

Prerequisite(s): None

## Required Course Materials



**Text/Tool: Meteorology Today**

ISBN: 9781337954631

Publication Date: 2018-01-01

Edition: 12th

**Notes**

Either the brand-new 13th Edition or the older 11th Edition are acceptable substitutions for those looking for a more economical print option. The e-book option is a good choice for those that do not want a physical textbook.

## Assessment Activities

- Exams (25% each for 75% total)
  - 3 multiple choice exams during the semester (see Schedule). Each exam will cover material since the previous exam only.
  - 1 OPTIONAL comprehensive final exam. If you choose to take the final exam, your lowest exam score will be dropped and only your top 3 exam scores will be counted toward your final course grade.
- Homework (20% total)
  - 15 homework assignments consisting of 15 multiple choice questions each.
  - You will have 3 attempts on each homework. Only the highest score will count.
  - The lowest homework score of the semester will not be counted toward your final course grade.
  - Homework will always be due at 11:59 PM (Eastern Time) on Sunday. After the homework deadline the link will disappear, and you will not be able to submit the assignment, nor see the questions.
- Participation (5%)
  - **In order to get credit for participation each week you must:**

- **View all of the online material in the module for the week** (Canvas tracks usage details for each student)
- **Complete the weekly participation activities**
- **Attend the weekly recitation sections**

## Grading

<b>Letter Grade</b>	<b>Percentage</b>
A	90 - 100%
B	80 - 89%
C	70 - 79%
D	60 - 69%
F	< 60%

## University Policies

### **ACADEMIC INTEGRITY**

Embry-Riddle is committed to maintaining and upholding academic integrity. Academic integrity violations include cheating, fraud, plagiarism, and double-submissions. More specific definitions of these violations and their consequences are described in the Dean of Students' **Honor Codes and Student Policies**. To ensure fair and full achievement of degree requirements, students must prepare and present their own work. To show that they have completed their work with academic integrity, students should keep any drafts, notes, calculations, and the like.

## Course Policies

### **Attendance will be taken in all weekly recitation sections.**

*Note: For the Dispatcher Program, 90% attendance is required. Official excused absences will not count against your course grade but will count against your FAA Dispatch Program attendance. The FAA has specific attendance requirements. Any missed class hours and content appropriate to the dispatch program must be made up. How this is accomplished is left to the discretion of the instructor. Some possibilities could include: (a) having the student attend another section of the course where the material is covered, (b) giving the student an assignment that would cover the material and take approximately the amount of contact time missed, (c) reviewing the material with the student (or having it reviewed with the student in the tutor lab). The method used is left to the discretion of the instructor as long as the content and hours are commensurate with that missed in the class. The student is responsible for making up missed work.*

- Note, there are multiple options for participating in class that do not require you to be in a specific place at a specific time. If you're quarantined or sick, please contact the **Dean of Students Office**.
- Late homework will not be accepted except for excused absences. The assignment link will disappear after the deadline.
- Make-up exams will not be given except for excused absences.
- Obtain verified excused absences from **Health Services** or the **Dean of Students Office**. Whenever possible, contact your instructor BEFORE the assignment or exam due date to make arrangements.
- Thanks for reading the syllabus. Send an email to your instructor with "found it" in the subject line before the end of the first week of class (11:59 PM EDT Sunday September 5th) and you will receive extra credit for class participation.

## Student Resources

### **ACADEMIC ADVANCEMENT (A<sup>2</sup>) TUTORING CENTER**

The **Academic Advancement (A<sup>2</sup>) Center** is your direct connection to academic support. The A<sup>2</sup> Center provides free tutoring and Supplemental Instruction (SI) to all students located on the first floor of New Residence Hall 3 (NH3) on the Daytona Beach campus. The A<sup>2</sup> Center provides peer led tutoring for foundational math, physics, engineering, biology, chemistry, and writing courses.

Please refer to the **A<sup>2</sup> Center website** for details and schedules.

**Math Tutoring Lab** provides students necessary resources to succeed in their 100- and 200-level math courses. Location: NRH3 Room 112

**Physics Tutoring Lab** offers free tutoring in their 100- and 200-level foundational engineering and aviation physics courses. Location: NRH3 Room 118

**Engineering Tutoring Lab** provides tutoring in foundational ES/EGR courses listed below. Location: NRH3 Room 113

- EGR 115 - Introduction to Computing for Engineers
- ES 201 - Statics
- ES 202 - Solid Mechanics
- ES 204 - Dynamics
- AE 201 - Aerospace Flight Vehicles

**Chemistry & Biology Tutoring Lab** provides tutoring within foundational chemistry and biology course listed below. Location: NRH3 Room 120

- General Chemistry I & II
- Organic Chemistry
- Biology I & II
- Anatomy & Physiology I & II
- Neurobiology



**Weather Tutoring Lab** is open Monday through Friday from 9 am to 5 pm and staffed with both virtual and face-to-face tutors who can help you with many meteorology, math and physics courses. The weather lab is located in COA 356.

**The Writing Center** provides student-led tutoring that adapts to the diverse needs of every writer. We are a teaching and learning service that fosters academic success through the development of independent thinking skills. Visit [Microsoft Bookings](#) to book a session now. Location: NRH3 Room 126

**General Study Area** encourages students to collaborate with their peers and form study groups at their convenience. Location: NRH3 Room 119

**Computer Lab** is open to all students and is equipped with standard academic university software and free printing. Location: NRH3 Room 117

## **CAMPUS SAFETY & SECURITY**

**Campus Safety & Security** officers are on duty 24 hours per day, 365 days a year. We strongly encourage students to report crimes, emergencies, or suspicious conditions to Safety & Security by calling the department's Communications Center at 386-226-6480. In the event of an emergency, call 386-226-SAFE (7233).

## **CANVAS HELP**

When logged in to Canvas, click Help – located at the bottom of the global navigation on the left side. This menu has choices for Canvas Support that you can choose from:

- Search the Canvas Guides
- Canvas Support Hotline at 1-833-334-2831, available 24 hours a day, 7 days a week
- Chat with Canvas Support

## **COUNSELING CENTER**

We know that university life at ERAU can be demanding. Balancing academics, work, athletics, finances, family, health, and social life can be stressful. You may experience challenges including struggles with your personal well-being. If you are needing support, the ERAU Counseling Center can provide a calm, friendly and supportive environment for students to address any issue or concern. Counseling is available to all currently enrolled DB students. Counseling is confidential and offered free of charge. They are located in the Wellness Center Complex, building 502 and can be reached at 386-226-6035. For more information about services and hours:

<https://daytonabeach.erau.edu/about/counseling>

*\*If you find yourself in an immediate mental health crisis, please call Campus Safety at 386-226-6480 or call 911.*

## **DIGITAL STUDIO**

The **Digital Studio** offers free digital design tutoring. At the Digital Studio, tutors can assist students with any aspect of the digital design process, including document design, poster design, information visualizations, podcast recording, and video editing. The Digital Studio offers students access to the Adobe Creative Cloud, Final Cut Pro, and a variety of other software. Appointments can be made here: <https://erau.mywconline.com>. You must create an account in order to schedule an appointment. The Digital Studio is located in SU 431.

## **DISABILITY SERVICES**

ERAU is committed to the success of all students. It is a University policy to provide reasonable accommodations to students with disabilities who qualify for services. If you would like to request accommodations due to a physical, mental, or learning disability, please contact the **Disability Support Services Office** at 386-226-7916 or by email at [dbdss@erau.edu](mailto:dbdss@erau.edu).

Disability Support Services' administrative office is located in Building #500. Disability Support Services' Testing Center is located in the Annex Building, room 217 and can be reached at (386) 226-2903.

## **THE CENTER FOR FAITH AND SPIRITUALITY/CHAPLAINS OFFICE**

The **Center for Faith and Spirituality** has five prayer and meditation rooms which are open to everyone from 6 a.m. until 10 p.m. There is also the Center for Faith and Spirituality Chapel located in the Center for Faith and Spirituality. There are two chaplains serving the Daytona Beach campus of Embry-Riddle Aeronautical University: Reverend David Keck and Father Tim Daly (Roman Catholic Chaplain). They work with students of all faiths as well as those from no faith tradition.

## **FOOD PANTRY**

We believe access to food is a human right, accessible to every student. We are committed to educating and distributing aid to our Embry-Riddle community. The mission of the Food Pantry program is to support the academic success of students by providing supplemental food for those who are experiencing food insecurity. Students can apply for aid on the **Food Pantry Request form**. The pantry is open from 11 a.m. to 1 p.m., on Tuesdays and Thursdays with no appointment necessary, and from 9 a.m. to 5 p.m. Mondays, Wednesdays and Fridays by appointment.

## **HEALTH SERVICES**

The **Daytona Beach Health Services** clinic is located in Building 500 on the corner of Richard Petty and Clyde Morris Blvd. Health Services will assist students with their medical appointment scheduling, billing, and insurance questions. Health Services can be reached at 386-226-7917 or [dbhealth@erau.edu](mailto:dbhealth@erau.edu). Health Services is staffed with registered nurses, a nurse practitioner, a physician, a physician assistant, a registered license dietitian, a Flight Medical Support Specialist, and an insurance specialist. When receiving services – whether in-person or virtually – students are required to bring/submit a current copy of their health insurance card. All students are seen and treated at Health Services regardless of their insurance.

## **HUNT LIBRARY**

The Hunt Library is here to help you succeed with finding just the right information resources. For detailed research assistance, please contact **Ask a Librarian**.

- Website: <https://huntlibrary.erau.edu>
- Email: [library@erau.edu](mailto:library@erau.edu)
- Phone: 386-226-7656 | 800-678-9428

## **INTERNATIONAL STUDENT & SCHOLAR SERVICES**

International students with questions about I-20s, visas or other related services that assist with the maintenance of their status and immigration compliance should contact **International Student & Scholar Services** at 386-226-6579 or [dbiss@erau.edu](mailto:dbiss@erau.edu). For other international student related issues and questions such as health insurance, taxes, drivers' licenses, campus work authorization, please contact the International Programs Administration Office at 386-323-8133. Both offices are located on the first floor of New Residence Hall 3.

## **OFFICE OF DIVERSITY, EQUITY AND INCLUSION**

The mission of the Office of Diversity and Inclusion is to advance the campus community's understanding, commitment, and respect for diversity, equity, and inclusion. Through providing and/or supporting education, mentoring, programming, advocacy, and outreach the office fosters an environment that is both beneficial and supportive for all students, faculty, and staff. To learn more about the office, campus offerings and resources, visit the **Office of Diversity and Inclusion ERNIE page**. Through reviewing the ERNIE page, you can learn ways our office and campus partners strive to create an institutional culture where diversity, equity, and inclusion are ingrained in our community. For additional information please contact [diversit@erau.edu](mailto:diversit@erau.edu). Both the Office of Diversity and Inclusion and the Diversity and Inclusion Lounge are located on the first floor of the New Residence Hall 3 within the International Programs Suite.

## **STUDENT ATHLETE SERVICES**

For student-athletes participating in a full schedule of practice, school, matches/games/meets, know that I am aware of the difficult schedule. Please use your available tutors and academic assistance wisely. The Braddock

Educational Support Team (BEST Program) includes tutoring and mentoring by student-athlete Study Mentors. It's Eagles Helping Helping Eagles!

### **Associate Athletic Director for Student Success/SWA**

Sonja Taylor

Email: [taylorso@erau.edu](mailto:taylorso@erau.edu)

Phone: 386-226-6735

## **STUDENT GOVERNMENT**

**Student Government Association (SGA)** proudly offers a variety of services to improve student life on campus. Through its four branches, SGA can fund student organizations, advocate for students, and carry out multiple projects. Besides giving students a voice on campus, SGA also provides students with information and entertainment through *The Avion*, Touch-N-Go Productions, and WIKD radio station.

## **TITLE IX**

**Title IX of the Education Amendments of 1972 ("Title IX")** is a Federal civil rights law that prohibits discrimination on the basis of sex in education programs and activities. All public and private elementary and secondary schools, school districts, colleges, and universities receiving any Federal funds must comply with Title IX.

The Title IX Office oversees compliance of Title IX Sexual Harassment in accordance with Federal Regulations as well as incidents falling under the University Sexual Misconduct policy. Policy violations can include sexual harassment or sexual violence, such as rape, sexual assault, sexual misconduct, sexual battery, sexual coercion, and stalking.

Anyone **may** report suspected or known violations directly to the Title IX Office. However, there are certain persons / offices who **must** report incidents to the Title IX Office (mandatory). Those are Campus Safety & Security, Dean of Students (or designee), Vice President of Human Resources (or designee). Please refer to the policy and/or contact the Title IX Office for more specifics related to filing a report.

## **Title IX Office**

Contact information: 386/226-7971; 386/226-6677; 386/481-9131

Online form: [dbtix.erau.edu](https://dbtix.erau.edu)

Email: [dbtitle9@erau.edu](mailto:dbtitle9@erau.edu)

## **UNDERGRADUATE RESEARCH**

Embry-Riddle strives to create a culture of knowledge discovery through research. The **Office of Undergraduate Research** engages undergraduate students in faculty-mentored research that is both faculty and student-led. Our mission is to provide a diverse set of opportunities for all undergraduate students to enhance their education through engagement in research, inquiry, innovation, and/or other scholarly projects.

## **VETERANS STUDENT SERVICES**

Being a student veteran can result in a variety of complexities that might require accommodations. Complications with VA benefits disbursements, and other unforeseen military-related developments can complicate your academic life. Therefore, please consider making professors aware of your Veteran status and contacting Veterans Student Services.

**Veteran Student Services (VSS)** facilitates the transition of military-affiliated students from military culture to University life, supports their academic success through informative programming, and assists veterans, active service members, guardsmen, reservists, and military dependents in receiving their military educational benefits. The unit is staffed with qualified school certifying officials who deliver a broad range of services; while providing informal counseling to students using VA educational benefits. In addition, VSS works in collaboration with our **Student Veterans of America chapter** and **Faculty-4-Veterans**, who support the unit in addressing the needs of our military-affiliated students across campus. VSS, which is located in Building 509, can be reached at 386-226-6350 or [dbva@erau.edu](mailto:dbva@erau.edu)

## **WEATHER EMERGENCY STATEMENT**

Hurricanes, tornadoes and other natural disasters (such as fires) are a part of life in Florida. In the event a natural disaster threatens our area, everyone at ERAU is expected to monitor voicemail, email, and the local media for any changes to the normal schedule, including evacuation plans. Decisions to close the Daytona Beach campus are typically made sometime in the afternoon on the day before the intended closure. In the event of an emergency during class hours, please listen carefully to directions from your instructor. If it becomes necessary to evacuate the classroom, we will gather at a designated meeting point away from the building and take attendance to ensure everyone is safe and accounted for. As part of the disaster preparedness process, it is strongly suggested that each member of the ERAU community enroll in the RAVE emergency notification system. If you have not done so, please sign up using the link provided on your ERNIE home page.

## ERAU Coronavirus Updates

Information on testing, vaccinations, health services, procedures and frequently asked questions are available at <https://erau.edu/coronavirus/>

Face Masks Strongly Encouraged: Consistent with **current recommendations** of the Centers for Disease Control and Prevention, and Embry-Riddle's long-standing culture of safety, all students (vaccinated or unvaccinated) are strongly encouraged to wear face masks indoors especially during their in-person classes and in other group indoor settings, including faculty office hours.

Vaccinations Strongly Encouraged: All students are strongly encouraged to receive a vaccination against Covid-19. Vaccinations are available at convenient **campus locations**.

# Course Schedule

Humor



Week	Start Date	Content	Assessments	Due Date
1	30-Aug	Intro to the atmosphere	<b>Homework Quiz: Ch. 1</b> <b>Participation Activity: Week 1</b>	5-Sep
2	6-Sep	Energy	<b>Homework Quiz: Ch. 2</b> <b>Participation Activity: Week 2</b>	12-Sep
3	13-Sep	Seasonal and Daily Temperature Changes	<b>Homework Quiz: Ch. 3</b> <b>Participation Activity: Week 3</b>	19-Sep
4	20-Sep	Humidity	<b>Homework Quiz: Ch. 4</b> <b>Participation</b>	26-Sep



			<b>Activity: Week 4</b>	
5	27-Sep	Clouds	<b>Homework Quiz: Ch. 5</b> <b>Participation Activity: Week 5</b> <b>Cloud photo extra credit opens</b>	3-Oct
6	4-Oct	EXAM 1 + Stability	<b><u>EXAM 1</u></b> <b>Homework Quiz: Ch. 6</b> <b>Participation Activity: Week 6</b>	<b><u>4-Oct</u></b> 10-Oct
7	11-Oct	Precipitation	<b>Homework Quiz Ch. 7</b> <b>Participation Activity: Week 7</b>	17-Oct
8	18-Oct	Air pressure and winds	<b>Homework Quiz Ch. 8</b> <b>Participation Activity: Week 8</b>	24-Oct
9	25-Oct	Winds: Local to Global	<b>Homework Quiz Ch. 9</b> <b>Homework Quiz Ch. 10</b> <b>Participation</b>	31-Oct

			<b>Activity: Week 9</b>	
10	1- Nov	EXAM 2 + Fronts	<b><u>EXAM 2</u></b> <b>Homework Quiz Ch. 11</b> <b>Participation Activity: Week 10</b>	<b><u>1-Nov</u></b>  7-Nov
11	8- Nov	Mid-latitude cyclones	<b>Homework Quiz: Ch. 12</b> <b>Participation Activity: Week 11</b>	14-Nov
12	15- Nov	Thunderstorms and Tropical Cyclones	<b>Homework Quiz: Ch. 14</b> <b>Homework Quiz: Ch. 16</b> <b>Participation Activity: Week 12</b>	21-Nov
13	29- Nov	Climate Change	<b>Homework Quiz: Ch. 18</b> <b>Participation Activity: Week 13</b>	5-Dec
14	6- Dec	EXAM 3	<b><u>EXAM 3</u></b>	<b><u>6-Dec</u></b>
Final	13- Dec	EXAM 4 (Optional)	<b><u>Optional Final Exam</u></b>	<b><u>13-Dec</u></b>

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